

**Analyzing Accessibility to Environmental Education at
Franklin County Metro Parks**

A Senior Thesis

Presented in Partial Fulfillment of the Requirements for Graduation
with Distinction in Geography in the Undergraduate Colleges of
The Ohio State University

by

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November 2006

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Introduction:

“The Majority of the world’s population will soon live in urban rather than rural areas” (The Earth Institute at Columbia University, 2005). People come together from all walks of life to the thriving city where opportunity is abundant. The diversity that exists in urban areas creates a multitude of issues to consider when forming any sort of government policy. This can also be the case when attempting to relay important information or educate urban dwellers as a single community. Because there are so many facets within a community, it is important to communicate information with respect to each of these individual backgrounds.

The book “Urban Political Ecology: Politicizing the Production of Urban Natures,” points out that in a world becoming more and more composed of city dwellers, there is a need for more literature on environmental politics and environmental sustainability in the urban environment. The authors go on to say that “discussions about Global Environmental problems and the possibilities for a sustainable future customarily ignore the urban origin of many of these problems” (Heynen et al. 2006, 2). The idea of sustainability refers to maintaining a world (society-nature) for future generations to enjoy. Cities seem to be at the heart of capitalist and economic vitality. The increase in the influence of capitalism on society is at the forefront of policy created in most cities. These policies are integral in the production of a city and the interactions of the city with other areas, whether it be at a local or global level.

The production, trade and consumption of commodities in capitalist markets has been directly linked to environmental degradation. These problems can affect the city

itself in the form of externalities associated with production or consumption of commodities: for example smog that is created by the burning of coal and gas to run vehicles and heat homes. The “urban origin” of environmental problems at the global level mentioned by Heynan et al. refers to the decisions (political and economic), which tend to be made at the urban level and have negative implications for global ecosystems. Numerous environmental problems that occur at the global level are associated with the extraction of “raw” goods that are generally found in developing countries around the world. It is in the best interest of the urban capitalist producer to get such goods, which are necessary for production, at the cheapest rates possible so that their profits will be maximized. By taking the cheapest route of extraction many social and environmental factors are overlooked. Therefore it is in the interests of the capitalist producer to create a view of nature as an object, external from the city existing merely to serve humans. This view of nature aims to alleviate feelings of responsibility and remorse for the exploitation of nature through over consumption and unsustainable production practices.

Education on the environment is increasingly important in urban areas where much environmental degradation occurs. The degradation impacts all facets of society, primarily those that are marginalized. There are certain socio-economic barriers that limit the ability of people to reap the benefits of exploiting nature; these same barriers attribute to greater burden that some parts of society face in regards to environmental degradation. The disparity in distribution of costs and benefits attributed to the exploitation of the earth, stems from the same origins as the urban perception of nature as an external object. If those in positions of power see only the benefits of exploitation, there is no incentive for them to make a change in their consumption/production patterns. Due to the explicit

link between environmental damage and consumption/production practices that are an integral component of capitalist society, as we know it, there is urgency in the notion that we must redefine the urban capitalist view of nature. Nature is not merely an external object as it is generally seen by most modern capitalist urban societies. It is interwoven into every aspect of society, even urban areas that may appear to be external to nature. The development of a capitalist economic system relies on nature to provide the inputs for production, without these inputs production would be impossible. The fact that most resources considered valuable by the capitalist market are finite should implicate the need for people to be more careful in how they choose to exploit such ‘raw’ goods. Humans play a major role in ecosystem processes and have the capability to profoundly alter those processes, in either an adverse or favorable manner. Creating sustainable societies in which people are more aware of the codependent relationship between humans and nature relies heavily on education on the environment at a local level. Focusing on functions of local urban communities as part of a more broad range of ecological process aids in establishing the view of society as part of nature, even in urban areas.

In growing urban regions throughout the United States there are green spaces (parks) set-aside primarily as areas for recreation and conservation within a city. Central Park in New York City and Forest Park in Portland, Oregon are two well-known examples of city parks. Green spaces and Parks have become a common component of most city landscapes, even in Central Ohio. Franklin County Metro Parks were established in 1945 to “conserve natural resources and provide natural area parks for people to enjoy” (Franklin County Metro Parks website). The Franklin County Metro Parks are made up of fourteen parks that cover about 23,000 acres. The Parks are

primarily located in Franklin County, although they do spill over into six other Central Ohio Counties. The Metro Parks were developed as a separate political subdivision, which is primarily funded through tax dollars in a levy passed by Franklin County voters in 1999 (Franklin County Metro Parks website).

In the case of Franklin County Metro Parks, there seems to be a lack of accessibility to education programs for some urban dwellers with very diverse backgrounds. There are various factors that attribute to limited access to Park Programs; language barriers are one example of such factors. The definition of nature that is conveyed as well as the ability of the Naturalist to express local environmental issues so that program participants with diverse backgrounds are able to relate are also factors that contribute to the accessibility of park programs. This research project was designed to assess accessibility to environmental education programs in relation to the content of such programs offered at Franklin County Metro Parks. Accessibility refers to knowledge of programs offered at the Parks, the manner in which “nature” is depicted and ability to participate in such programs.

Relevant Literature:

The relationship between humans and nature is a complex one that scholars have struggled to define throughout history. Several ideas have existed regarding the dominant actor in the relationship. The Western world has historically taken a dualistic approach to the human-nature relationship, although perceptions of humans and nature as unified have also been present throughout history. According to Glacken, these different perceptions have “plagued the history of geographic thought” (Glacken 1967, 10).

Ancient cultures considered the earth to be a living organism, in some cases referenced as a mother. The relationship these ancient people had with the earth was much more spiritual than recent humans and attributed to their devout regard for all aspects of nature. In more recent times the earth has been viewed as dead and as an object or property meant to be exploited. These views have become more of the general consensus with the rise of capitalist societies. “The death of nature legitimized its domination” (Merchant 1992, 42). Merchant refers to the “mechanical” view of nature, which came about with the scientific revolution and depicts the earth as a machine. This view adds to the perception of human dominance over the earth through the ability of humans to manipulate the earth with science. These ongoing views of the earth as an inert machine have fashioned a society with little regard for the effects of our actions on the earth. This has enabled people to continue to exploit the earth for profit, which is the dominant factor of environmental degradation that exists today (Merchant, 1992).

Contemporary academic thought on the relationship between humans and nature is primarily one of codependence. Castree and Braun explain that nature is a social construction and it is important to look at who holds the power to define “nature” (Castree & Braun 2001). The idea that nature is socially constructed explains that the way in which we view nature is made up of ideas that are impressed upon us by society as reality. “The social construction of nature should be understood as primarily an epistemological assertion concerning our knowledge of nature rather than an ontological assertion concerning the reality of nature itself” (Proctor 1998, 353). It appears that people are unable to comprehend things such as “human nature” and “nature” outside of knowledge that is culturally defined. This creates an uncertainty when considering ideas

of nature as culture to be simply our socially constructed version of nature rather than actual nature itself (Procter, 1998).

The constructivist perspective mentioned by Heynen et al. expresses the view of environmental issues in urban areas. “There is no such thing as an unsustainable city- rather there are a series of urban environmental processes that negatively affect some social groups while benefiting others” (Heynen et al. 2006, 11). This view explains that the city itself is not unsustainable, but that processes going on within the city are the driving factors in environmental problems as well as social injustices associated with urban areas.

This view has recently been supported by the emergent argument that historical views of humans as a separate entity from nature have “impeded understanding of environmental issues” (Heynen et al. 2006, 3). This realization is particularly important to urban areas where the common view of nature is as a separate entity from society. As mentioned above, cities are often regarded in a negative way when it comes to environmental degradation. We generally think of the city as unnatural, though there are many ways that a city is in fact natural. The city is composed of social processes that are intertwined with natural processes, which make up the larger ecosystem; “natural or ecological conditions and processes do not operate separately from social processes” (Heynen et al. 2006, 3).

As Cronon expresses in *The Trouble with Wilderness*, by looking at nature as something so separate from humans we have created a barrier in dealing with environmental issues: “the place where we are is the place where nature is not” (Cronon, 1996, 81). He goes on to explain that we need to be able to look in our own backyard and

realize that it is nature. Also that in modern environmental discourse there needs to be an emphasis on the ways in which we can “use nature as well as not use it” (Cronon 1996, 85). Current environmental discourse puts much of its focus on the ways in which humans are destroying nature instead of setting forth ideas or processes through which nature can be used without major disruption. Production of cities is one way that humans use nature. The city therefore is natural, though there are certain processes within a city that create the notion of a city as unnatural because they contribute to environmental and social injustice.

The dominance of capitalism in the United States and the growing influence of advanced capitalism in urban societies all over the world has attributed to the common view of Nature as external from the city. The dependence of a growing capitalist society on nature for “raw” commodities is a fact that tends to be overlooked by some environmental literature (Heynen et al., 2006). This concept relates directly to the socio-environmental processes that occur in the city; processes that include the production and consumption of commodities of which these raw goods are the primary component. This illustrates the idea that some processes within the city are unsustainable, although the city itself is sustainable.

The current common view of nature as separate from the city is one of many different dualistic views of human nature relationships that have emerged over time. As socio-environmental processes continue to evolve new factors appear that change peoples’ perceptions of the human nature relationship. For example, early American immigrants regarded nature as wild and something to be tamed. In the early to mid-nineteenth century perceptions of nature changed as a more romantic perception of nature

appeared. Authors such as Thoreau and Emerson depicted nature as innocent and pure. Both authors expressed disappointment in the materialistic nature of society during their lifetimes. They felt that humans were losing touch with nature as a result of the growing capitalist economy in the United States, which put an emphasis on material goods. They communicate that there is a loss to ourselves when we break our relationship with nature (Benton and Short, 1999). There seems to be the idea that the relationship with nature is broken in an urban environment because cities are often considered to be somewhat of a capitalist marketplace where there is much emphasis on material goods. The production of material goods can have negative impacts on the environment. The market economy of most urban areas is another type of flow that plays into the socio-environmental processes of which a city is produced (Heynen et al., 2006). Environmental degradation that comes with production in cities took a very apparent toll on the environment during the industrial revolution. Industrialization was a primarily urban phenomenon that led to a great degree of pollution in cities. During this time people looked at the city as a dirty unnatural place and considered nature as a far off place where they could escape the dirt of the city (Benton & Short, 1999).

The emergence of perceptions of the city as unnatural led to prominence in ideas of preservation and conservation in the late nineteenth century. These views of nature were more romanticized, people wanted to preserve the beauty of nature to use as places to visit and unwind (Benton and Short, 1999). This view considers nature something to be kept apart from humans. There is a feeling that the only way to maintain the beauty of nature (for aesthetic pleasure) is to keep nature refuges as a separate entity from society.

In 1872, President Ulysses S. Grant signed the Yellowstone National Park Act,

creating the first National Park in the United States (Benton and Short, 1999). The push for a secure area of land came from emerging factions of society that were concerned with resource conservation and nature preservation. This was another outcome of the views of the city as dirty and unnatural during the Industrial Revolution. There was overuse of natural resources such as trees, and a lot of discharge of pollutants into the environment, which was most evident in the city. The Resource Conservationists were concerned with “efficient and rational use of the Nations resources.” Nature Preservationists were concerned with “protection of natural wilderness” (Benton and Short 1999, 65). Under the National Park Act of 1872, land was turned over to the State with explicit details as to how it should be used. The land was a public space that would be used for “resort and recreation for all time” (Benton and Short 1999, 66).

National Parks have become an important part of American identity. Americans refer to our grand National Parks when expressing to outsiders that we are a land of big beautiful wilderness. They continue to play a major role in the identity of American people (Benton & Short, 1999). The National Parks were created as an escape from the city to the big wilderness; in modern times green spaces are being incorporated into cities in the form of parks. Although parks such as Portland’s Forest Park are located in closer proximity to the city than National Parks they seem to have the same basic goal of protecting nature from the ravishes of urban life. The Franklin Co. metro parks are an example of land that was set aside for preservation and conservation within an urban area.

As Robbins (2004) explains in his book *Political Ecology*, conservation has been used as a tool to legitimize unequal access to nature as well as uneven distribution of

responsibility for environmental degradation. This concept is particularly common in urban areas where there are many groups of people from very different socio-economic backgrounds. These differences underlie the processes of changing landscape in a city to result in an uneven urban geography in terms of distribution of costs and benefits that arise from exploiting the environment (Heynen et al., 2006).

The authors go on to explain the underlying political, economic, ethnic, racial and gender conflicts as well as power struggles of which the “environment” of a city is comprised. “The urban constitutes the pivotal embodiment of capitalist or “modern” social relations and by implication of the wider (and often global) socio-ecological relations through which modern life is produced materially and culturally” (Heynen et al. 2006, 5). The explicit spatial network of urban areas through movement of capital from one place to another as well as migration of citizens from one place to another illustrates the idea of spatial interdependencies. These spatial interdependencies reiterate the idea of codependence between humans and nature.

The authors also convey the uneven distribution of environmental benefits as well as environmental deterioration that occur within the spatial network of the city. The uneven distribution of such benefits /damages seems to have the most direct effect on politically and economically marginalized factions of society because they have little influence on the disbursement. This articulates the importance of increased awareness through education programs of the processes that create a distribution in which marginalized people of society bear most of the burden of environmental costs in urban areas.

Along similar lines, Robbins suggests that we should look at energy flows in a

city as a part of a natural cycle instead of simply looking at them as “bad.” He states “political ecology might integrate critical theories of urban growth, decay, investment and control with ecosystem analysis of daily life” (Robbins 2004, 216). It is therefore important that all citizens have equal access to public land and that the environmental education in an urban area should not merely look at negative impact to the environment but more importantly focus on the ways in which urban environmental sustainability can be achieved.

The ideas expressed by Robbins and Heynen et al. that processes within cities are the source of environmental degradation and social injustices expresses the need for these processes to be fundamentally altered. In order to create initiatives that would bring about systematic change, it is necessary to change the way we think about the environment. Environmental education programs that express cities as sustainable and natural could play a vital role in reshaping the way that people think about the environment. It is important for people to recognize that they are actually part of nature regardless of whether they are in a city or in a National Park. People are a driving force in the processes that occur in a city and therefore have the ability to change those unsustainable processes within a city. If it is possible to change people’s views of the human-nature relationship through environmental education programs, this realization could lead to human forces speaking out and trying to change unsustainable processes at the local as well as the global level.

Nature and environmental programs are offered at many parks around the country. These park programs provide an opportunity to educate people on the environment, which gives them an important role in shaping views of the environment. Therefore,

processes within the park contribute to the production of the city, which makes the nature programs capable of changing other processes within a system through means of education.

Many of the National Parks, as well as local urban parks were formed on the basis of preservation and as refuges from urban life. This sort of dualistic background brings up the question of how programs at parks are expressing ideas of the human nature relationship. Do they still consider the urban to be unnatural? Do those parks that exist within urban areas project the idea that the park is a component of the nature of the city?

Previous studies on access to Metro Parks have been conducted with the purpose of investigating variations in recreation and leisure activities that arise from socio-economic differences in a population. Studies have found that leisure patterns are dependent on “distribution and allocation of recreation activities” (Payne et al. 2002, 182). One study found that people in more affluent areas as well as areas in closer proximity to the parks were more likely to be members of recreation centers (Payne et al. 2002). Another study, of Cuyahoga County Metro Parks, explains differences in park visitation between low and high-income areas. It suggests that in low income areas, parks were too far away and that people had no means of transport by which to get to the park. Crime was an additional perceived constraint to park access among people of lower income areas (Mowen et al. 2005). The study found that over time there were fewer perceived constraints due to the efforts of Metro Parks to make parks safer and provide more park information and activities. Constraints such as financial resources and available time are structural barriers, which are factors that limit participation (Samdahl & Jekubovich, 1997). All of these studies look at constraints that prevent use of Metro

Parks but none take into account variance in content in programs offered when looking at the audience targeted. Are there variations in accessibility to such programs in different parts of Franklin County and what accounts for such constraints? Are there variations in the content of the education programs offered according to the area of the county in which the targeted participants reside?

Methods:

Through interviews, participant observation and questionnaires I was able to compile data to analyze the questions posed in the previous section. I felt that interviewing Park Naturalists would give me some insight as to how they choose the content of the programs and how their personal views and backgrounds help to shape the content of the programs. All of the Naturalists interviewed were very excited to speak with me and seemed genuinely interested in teaching people about nature, although their methods of expressing the information varied.

I conducted interviews with eight Park Naturalists at seven of the Franklin County Metro Parks. The interviews were conducted over a time period of three months: August 2006-October 2006. I interviewed Naturalists at: Pickerington Ponds, Chestnut Ridge, Battelle Darby Creek, Inniswood Metro Gardens, Blendon Woods, Sharon Woods and Blacklick Woods and two at Blendon Woods Metro Park. I asked the Naturalists questions regarding things that influenced the content of their programs such as: their education and background; the amount of freedom they have in creating the programs; what types of sources are used to create the content of a program; the degree to which the programs are tailored to the specifics of the park environment as well as surrounding

communities. I also asked about turnout for programs and what they thought might affect turnout, as well whether or not they geared their programs toward a specific audience.

I observed ten park programs over a four month time period: July 2006-October 2006. The programs I observed were primarily at the same parks where I conducted interviews with Naturalists. The programs were on topics such as biodiversity, nature awareness, wildlife in Ohio, building a backyard habitat, migration of monarch Butterflies, observing animal sounds and wildlife and full moon hiking (random facts about the moon). I did observe two programs at Park's where I did not conduct interviews with the Naturalists: a river hike at Highbanks Metro Park and Three Creeks Fest at Three Creeks Metro Park. The Fest at three creeks had booths set up by different environmental organizations around Central Ohio and different family oriented activities throughout the day involving nature in the area. I also visited an exhibit at Slate Run on the history of farm life in Ohio.

After some of the programs I observed I conducted brief informal interviews with several participants. I asked questions concerning how often they visited the parks or attended park programs; which parks they visited most frequently; the activities they engaged in while visiting the parks as well as their opinion on the program attended.

My final method of data collection was through surveys distributed at four library branches around Franklin County. The locations were the Northwest- Northwest branch, the South-South High Branch, the East-Whitehall Branch and the West-Hilltop branch. I collected surveys from 120 people (30 at each of the above locations). I asked if they visited the Franklin County Metro Parks and which park did they visit most often. I also asked what activities did they engage in while at the parks, with the options: picnicking,

hiking/walking and nature programs. I asked how they heard about the programs and for their zip code. I asked for their neighborhood or zip code as a means of creating a reference to where people lived in relation to the parks they visit, as well as a means of gauging the socio-economic diversity through looking at census data from the given zip codes. I used the two most common zip codes given by respondents for each area and found the average of population (looking at race) for each area. I also looked at four different income brackets and found the average family income for each area according to the two most common zip codes. In my statistical analysis, I used the general area (Northwest, West, South and East) to gauge the relationship between Park Visitation and Participation in activities to area of the city where the respondent was from. I used a statistical comparison to determine if the two variables, park visitation/activities and location in city where respondents reside, are statistically independent or if a relationship exists between them.

Results:

Through the interviews with Naturalists, I found a lot of common response. The Naturalists are given a great deal of freedom as far as the programs they choose to put on at their park as well as the content of the programs. There were several dominant themes throughout my interviews with the Naturalists that illustrated the ideas of human-nature relationships being conveyed through Franklin County Metro Park programs. There were also dominant themes throughout regarding levels of participation in programs and factors that attribute to participant turnout for programs as well as return to future programs.

Creating access through SEED and youth focused programs

There are some programs through a partnership with Columbus City schools that have more defined requirements. In an interview with Susan Boggs (education coordinator for Franklin County Metro Parks), she explained the education program she started at the Metro Parks around four years ago (SEED, Students Exploring Ecosystem Dynamics). The program is a partnership between Franklin County Metro Parks and Columbus City Schools. According to Susan, Eco-system dynamics as referred to by the SEED program is an in-depth look at local ecosystems through first and second hand information (lessons by teachers and visit to the park). SEED entails several different components: the fifth grade teachers from the City schools that choose to participate are trained by Park Naturalists to teach about interactions that occur within ecosystems (there is more of a local focus). The program also calls for the Park Naturalist to go to schools around the city of Columbus for a lesson in which they explain to the students the role of a Park Naturalist and prepare them for what to expect when they get to the park. The final project comes after the previous three components are complete. The project is a cumulative project that incorporates aspects of what the students learned in the classroom from their teacher about interactions in local ecosystems, the lessons from the Naturalist about their job and the actual observation of ecosystems while visiting the parks and taking part in activities. SEED is funded primarily by the Parks through grants they receive from corporations such as Cardinal Health and AEP. The program gives Columbus City School students the opportunity to come to the Parks with their schools. The content of these programs is determined by the Naturalists at the Park and must be made in conjunction with the State Academic standards for fifth grade students.

According to Susan Boggs the program provides a mechanism through which the students become more aware of natural processes at a local level. The idea of taking the students to the park to give them a first hand knowledge of ecosystem interactions in a local context relates to the ideas expressed by Robbins as well as Heynen et al. that nature is commonly viewed as external from the city. The idea that the students have to come to the park to see “nature” and ecosystem dynamics expresses to those students the view that the City is not natural. The park visit for first hand experience of natural ecosystems component of the program seems to relay a dualistic perspective of human-nature relationships to the students. I was not given great detail of the information actually taught to the students in the program to make any significant inferences as to the views of nature that were actually depicted through the lectures and activities. When referring to access as ability to visit the parks and participate in nature education programs at the Parks, the program is creating greater access to the Metro Parks for a marginalized group. By getting transportation funded to bring young students from the city of Columbus to the Parks, they are engaging a group that does not frequent the Parks according to several of the Naturalists interviewed. The creation of the SEED program, as well as providing most Park programs on evenings and weekends relieves some of the constraints mentioned in previous studies on access to Metro Parks, such as those found by Samdahl & Jekubovich.

The SEED program, as many other of the park programs, focuses on getting children to the Parks. The idea seems to be that bringing kids to the park will eventually bring their parents to the park. Also “children are the future” as one Naturalist said, therefore it is vital to focus our efforts of environmental education on the children. The

idea of focusing efforts on children because they are the future expresses the importance of the role the Parks play in the way that future generations perceive nature. It is important to assess the ways in which the relationship between society and nature are being depicted in their programs. As we have come to realize, the view we take on nature has profound impact on the socio-environmental processes that exist in an urban area like Franklin County.

The Naturalist at Battelle Darby Creek explained in her interview that the non-English speakers that came to the parks generally came with their children who did speak English. The children seem to be a liaison between the parents and the information that was provided at the park either through Naturalists or exhibits. As many of the Naturalists explained to me, it is much easier to get children interested in nature and sometimes they are able to get adults interested as well. The Naturalist at Blendonwoods explained that many young children bring their parents back to the Park after having come for a school trip. I did notice in the questionnaires I collected that many people noted they had heard about park programs through children or grandchildren who had attended programs with their school. Also, I noticed while observing several programs that they were composed mostly of families with young children. I interviewed several of the parents after such programs and found that they chose to come to the program specifically as a learning experience for their child. Many of those interviewed expressed that they themselves had actually learned a great deal from the program and would attend more programs in the future. By focusing on a younger generation with most of the Programs, the Parks are playing a vital role in shaping future views of human-nature relationships in Franklin County.

Using the children as a means to bring older groups of people to the park does seem to be somewhat effective. One drawback is that it overlooks the notion expressed by the Naturalist at Battelle Darby Creek of the importance of relating to the ecological background of the participants in the programs. She claims that an important part of the program is relating what is going on in Nature to something that participants can identify. She felt that her lack of knowledge on the ecological or social backgrounds of different ethnic groups that visit the park would make it difficult for her to explain issues or processes in a way that they could relate so that they would actually care. This is a social barrier that currently exists in park programs and relates directly to the idea that there is an uneven distribution of the urban landscape. Certain groups are unable to access some of the socio-environmental benefits of the city (like access to Park programs) though they may bear much of the burden.

The idea seems to go along with the idea expressed by Heynen et al. about the ever-changing nature of a city through the constant socio-environmental changes that are part of the production of a city. The constant change in the make up of the population of the city creates more factors to consider, such as that mentioned by the Naturalist at Battelle Darby Creek, when creating programs.

Programs as a way to reconnect people with the earth

Another common theme that came out during my interviews and through observing programs was that Naturalists were creating programs aimed at reconnecting people with nature because they felt there was a loss of identification with nature of the people in Central Ohio. The Naturalists who commented on this seemed to feel that a connection with the Earth was similar to being aware of the interactions that occur in

nature and how our actions as humans affect the earth. I got a sense of nature as being dominated by ignorant humans who need to be reminded of the fragility of the earth and our reliance upon it for survival.

In the interview with Susan Boggs, she stated: “Metro Parks put a huge emphasis on education, it’s part of the mission [of the Metro Parks].” Susan said that this is important in urban areas because “there are a lot of people who are not connected with the earth” (Boggs, 2006). She gave an example of urbanization contributing to an explosion of deer population at Sharon Woods Metro Park in Westerville. “A lot of people you talk to now don’t have any connection [to the earth], they don’t understand that without control the deer population takes over everything. We lost 150 species of plants at Sharon Woods alone because of the deer population. The people that don’t have a connection with the earth don’t understand; they don’t see the impact that it has on other things. They feel sorry for the deer and don’t want you to control the population” (Boggs, 2006). As Heynen et al. explain the sustainability of urban events depends on the processes that constitute the urban environment. Therefore it is the processes that must be addressed to create systematic change.

Similarly, when interviewing Naturalists from Inniswood Gardens and Chestnut Ridge Metro Parks, the sentiment of people being “out of touch” with nature was an issue that was heavily addressed through their programs. The Nature Awareness program that I attended at Chestnut Ridge Metro Park was particularly interesting in the approach it took in relaying human-nature relationships. The Naturalists asked the participants to stand next to a stream, hold their ears and listen to the water flow. He asked everyone to listen very closely so that they could actually hear the water running over the rocks and feel a

greater sense of the route the water was taking; not simply where the water was at one particular point in time but where it had come from and where it was going. He explained that this was the way our ancestors observed their surroundings because they directly relied on nature to sustain their lives. “Today we can go to the supermarket and buy a pre-cooked meal with components that come from all parts of the world without ever having to go to any of those places, our ancestors had to go out and hunt for their food” (Park Naturalist-Chestnut Ridge Metro Park, 2006). As Heynen et al. explain urban nature is constantly evolving through different process. The Naturalist seems to be expressing the view of Nature as separate from the urban, and as one that we need to return. His views of getting back in-touch with nature seem to correspond to the frontier nostalgia expressed in Cronon’s writing. He explains, “This nostalgia for a passing frontier way of life inevitably implied ambivalence, if not downright hostility, toward modernity and all that it represented” (Cronon, 1996). The Naturalist at Chestnut Ridge continuously compared modern ways of life to that of our ancestors and attributed modernity to environmental problems, particularly in urban areas. He focused on urban areas as one of the major influences “breaking” the connection of people with nature. This idea is shaping views of nature to a more historic dualistic idea of society and nature. Nature is expressed as being pure and natural and on the other hand society, particularly urban society, is being expressed as the negative force that is degrading nature.

Many of the participants in this particular program seemed to agree that somewhere along the line people have lost touch with Nature, though they seemed to find his methods of expressing the idea somewhat “out-there” as one participant put it.

Chestnut Ridge is in a more rural area than the other parks where I attended programs, which may have attributed to the fact that this program had much less of an urban connection than programs I attended at some other Metro Parks. The Naturalist said that sometimes he would change certain aspects of his program if he felt the people in the audience were not really receptive. He was more extreme in pushing the idea of Nature as a living being with the group I was observing. His portrayal of nature as a living creature is related to the ideas of ancient people as Merchant explained in her writing. This view existed before more dualistic views came about with the rise of Capitalism. Although, the Naturalist viewed Nature as alive, he took a very dualistic approach to the nature-society relationship by almost condemning society for degrading nature.

The Moonlight Hike program at Blacklick Woods used a different method of connecting people with nature. This program relates to Robbins' suggestion of considering the inner workings of a city as we would consider any other ecological process. The hike was part of the ecological flow of the city. The hike created a sense of nature existing within the city and served as a sort of relaxation component to the flow of city life. In no way was nature expressed as something separate from the city.

The Naturalist at Chestnut Ridge articulated another idea expressed by Heynen et al.: that there is a tendency for people to forget that capitalist societies are dependent on Nature for raw goods that go into production of commodities. He gave the example of our ancestors being more connected with nature because they collected food in the "raw" form, and now people buy pre-made food at the store so they lose the connection with the goods in their raw form. Although it is important for people to know how their food was produced, the methods used by the Naturalist in his program were in a sense condemning

urbanization for creating a society of people who do not care about where their food comes from. Many urban people do not have easy access to such information, which is why it is important to have education programs that express the codependence of the human nature relationship so that processes such as this that occur within a city will be noticed as problems. Only when those who make the decisions regarding processes are able to see those processes as the problem will a systematic change occur. This is why it is important for these park programs to express to program participants that the city is not an unnatural thing, it is part of nature.

Park setting plays a role in content of programs:

There was a difference in the idea of the parks as part of city life for those Parks that were farther outside the city. For example the Nature Awareness program at Chestnut Ridge emphasized that our ancestors were more in tune with the earth because they lived in the “wild” and that modern humans needed to get back to this type of relationship with the earth. Because the park is not really in the city the idea of the Park as part of the ecological flow of the city does not exist. The sentiments I observed at this particular Park was that it was more of a separate entity from the city and the views of nature depicted in the program were similar. The Naturalist’s ideas were very Romantic, similar to those of Thoreau and Emerson, which saw the focus of capitalist societies on material goods as the reason for people losing touch with nature. This puts more of a negative connotation on urban life and seems to express that it is a separate entity from nature.

Clear Creek was another park farther outside the city that I observed. Though I did not participate in any programs at this park, I did observe that it had a different feel from the Parks closer to the city. I also spoke with several people around the park who

had come from the city to the park to “get away for the day.” One couple I interviewed at Pickerington Ponds said that they chose that particular Park because to them it was like an escape from the city. The Parks that are farther from the city seem to be viewed in more romantic terms, as the big wilderness and as a place to escape the city. Another observation I had while at the parks further from the city was there was not as much apparent diversity in race or ethnicity at these parks. The parks closer to the city, such as Blendon Woods and Blacklick Woods had a very diverse group of people using the parks, primarily for recreation. This implies that access to the Parks farther outside the city might be limited for certain sectors of society. This illustrates the idea of uneven distribution of costs and benefits regarding the environment in Robbins’ writing.

Inniswood is one of the parks that is in a more urban area. The Naturalist at Inniswood did a better job of expressing the view of nature and society as co-dependant. The content of her program relates to messages in Cronon’s writing. She expresses the idea of an environmental ethic “that tells us as much about using nature as not using it” (Cronon, 1996). The program I attended at Inniswood Gardens was on “How to Create a Backyard Habitat.” This program had more of an urban focus; the naturalist illustrated methods of gardening to create a sanctuary for bird species that are native to the area (Westerville, Ohio). She explained to me in an interview that the message she tries to relay to participants in her programs is to think locally and to promote native plants. “By educating ourselves on the [plant] species that are native to our area we create a greater sense of our connection with Nature at a local level instead of thinking of it as some far off place.” (Park Naturalist-Inniswood Gardens, 2006). This also relates directly to the message Cronon was getting at in his writing of home as a middle ground to extreme

views pulling human-nature relationships one way or the other. By expressing the idea of nature in our backyard she is getting at the idea that Cronon mentions of bringing the values we associate with nature closer to home. There was only one participant in this program and she was very interested in the topic as she was the “Tree Commissioner” for her neighborhood in Coshocton, Ohio. She was already very informed on native species and how to use these plants to create a garden that was ornamental as well as functional.

The Naturalist incorporates the functionality of a garden as part of a larger ecosystem and not merely for the aesthetic pleasure of the “owner.” The idea of a garden as functional relates to the idea of urban ecology, which expresses urban areas as one that incorporates “nature” into the city and does not look at it as a separate entity. The Naturalist is expressing the idea of nature as something that we are part of, that we must work with and not against to maintain efficiency.

One program that I attended at Blacklick Woods, another park in a more urban setting, was a Moonlight Hike on a full moon. This program varied greatly from the other programs I attended. There was not an explicit focus on “Nature” or “Nature Education.” It was a hike along the path with different activities along the way that were not necessarily “nature” related. The hike ended in an open area where participants were given the opportunity to use binoculars to look at the moon. The Naturalists did give some facts about the moon at the end of the hike as well as using the walk back to the parking lot as an opportunity to promote other similar Park programs: a hike with your dog and a bike ride through the Park. There were about twenty people on the night hike. The hike was one of the most heavily attended programs I observed other than programs that were special daylong programs, which are more forcefully advertised, such as

Monarch Day at Blendon Woods. Programs like this seem to appeal to a more diverse crowd than the more ‘nature education’ focused programs. These programs are very valuable in getting people to actually come to the Park and participate in programs. Although there are no overt lessons on Nature, the participants are interacting with nature by taking the time to go on a night hike and look at the full moon, which is something they might not do otherwise.

Parks seen as a place outside the city for relaxation:

The idea of the parks as a place to unwind and relax was a common theme through my interviews with park program participants. Their view of the parks as a place to unwind within a city relates to the view expressed in the Benton and Short article that explained that people escaped the City to the Wilderness of the parks. The couple from Pickerington Ponds that I mentioned earlier explicitly said they came to the Parks to escape the city. The remainder of those interviewed expressed visits to the parks as part of their routine as a means of relaxing. This seems to say that people feel that the parks are a “natural escape” from the “unnatural” city where they can relax.

Through interviewing most of the participants on the “full moon” hike, it seemed as though this was an opportunity for them to meet up with friends or family for an evening of free entertainment. All of the participants interviewed said they would return to the park for similar programs. There were only two participants in the programs I observed at Chestnut Ridge and Inniswood Gardens (mentioned previously) and those people were very interested in the topic and were already involved in other groups that promoted Nature awareness and education.

Factors that affect program participation:

I questioned the Naturalists on the general audience of their programs and what part of the county participants generally came from to attend the programs. The answers I received were the same across the board; most of the participants were local but for bigger more popular programs, such as the Monarch program, people come from all over the county as well as other parts of the state to attend. Speaking with some of the program participants I found that people did travel to parks that were farther from their home than other parks, specifically for a specific program or because they preferred a park farther from their home. For example one family from Bexley which is very near to Blacklick Woods, drove to Pickerington Ponds (approximately a twenty minute drive) for the Wildlife display that was offered and because they “really like this park” (Couple at Pickerington Ponds). They said that one reason they preferred Pickerington Ponds to Blacklick Woods or other Metro Parks that were closer to their home was because they felt it was farther from the city so it felt like more of a “day out” to them. “We go to Blacklick Woods quite frequently to walk our dogs so when we have an entire day we prefer to come here, it is more calm being farther from the city” (Couple at Pickerington Ponds). Most other program participants I interviewed lived very close to the park, which was the primary reason for several participants to attend the program. “ I live in the apartments next to the park. I come to as many programs as and the programs tend to be very relaxing” (Program participant at Blendon Woods Metro Park). Many of the participants I interviewed described the programs as being “relaxing” or “a way to unwind.” This gets back to the idea that people tend to view the parks as an escape to nature from the urban.

Creating diversity through Park programs by expressing spatial interactions:

There seems to be a general consensus among the Park Naturalists interviewed that the content of the programs have more of a local focus, although the local issues fit in with global trends that were expressed through some of the programs offered. For example I attended a “Biodiversity Hike” at Blendon Woods Metro Park that focused on biodiversity at the local level but incorporated global themes. The Naturalist explained the meaning of Biodiversity as "variation of life at all levels of biological organization" (Parks Naturalist-Blendon Woods). She pointed out native plants as well as invasive plant species that had taken over and suppressed other (native) plant species when introduced to the area. By including the fact that some species are introduced from other parts of the world she illustrated the global level of ecological processes. This expresses that the urban area is affected by ecological systems on a global scale and vice-versa that the city has an effect on ecological processes at a global scale.

The major program at Blendon Woods is their Monarch Butterfly exhibit. During my interview with another Park Naturalist at Blendon Woods she commented on the turn out for this program: “This exhibit draws in around 300 people every year, it is by far our most popular program” (Blendon Woods Park Naturalist Interview 2, 2006). This program brings in Global themes by looking at the migration patterns of the Monarch Butterflies. The naturalist said that she uses this as an opportunity to tie in a cultural lesson about Mexico. She also expressed that she would like to offer some programs in Spanish as a route by which to reach a larger more diverse audience. “There are so many Spanish speaking people that live in this area and use the parks, we need to find ways to draw these people to our programs” (Blendon Woods Park Naturalist Interview 2, 2006). This seems to relate to the idea explained by Heynen et al. of the city constantly evolving

and the socio-economic issues that underlay these evolutions and created disparity in the urban landscape. By creating park programs that take into account some factors that might marginalize groups the Naturalist is creating a process that helping to “even out” the “uneven” urban landscape.

She was not the only Naturalist to express an interest in drawing a more diverse crowd to the programs, specifically mentioning people of different ethnicities who have recently moved to Columbus. The park Naturalist at Battelle Darby Creek explained that there are many non-English speakers who frequent the parks though they do not attend Park Programs. She felt there were several reasons for this, the primary reason being that all of the programs are only offered in English. She went on to explain that one way in which the Parks found to connect with non-English speakers was through displays in the nature center. “The children will translate the captions on the displays for their parents. This allows them to learn about nature or history in the area without the intimidation they might encounter thorough the face-to-face interaction with a naturalist who does not speak their language” (Naturalist at Battelle-Darby Creek, 2006).

Other Park Naturalists expressed similar ideas about the use of exhibits as a way to educate people who are more intimidated by the “classroom” sort of setting of some of the programs. “Although very few of our programs are actually in a class room, many people are intimidated by the thought of expressing their views or knowledge of nature in front of a group” (Naturalist at Pickerington Ponds).

The Naturalist at Battelle Darby Creek also explained how she felt that it was important to be able to relate to a person’s ecological background in order to impress upon them the importance of caring for our environment in Central Ohio. She said that

her knowledge of the environment that many immigrants come from is limited; therefore it is difficult for her to relate the environment of Columbus to the environment of immigrants who come from various ecological backgrounds.

Diversity found at the Parks but not Park programs

According to all of the naturalists interviewed as well as my observations of people in the parks, there appears to be a very diverse group of people who utilize the Franklin County Metro Parks. The results of the questionnaires I collected supported this hypothesis as well. I collected questionnaires from Libraries at four different locations in the city of Columbus: the North West, East, South and West side library branches. I chose these different locations as a means of collecting a robust sample to analyze. I found that the frequency of park visitation and participation activities (including programs) was not dependant on the area of the city that the people questioned came from (see appendix A). Although the data collected from the questionnaires was not a great indicator because many people did not include a very specific reference as to where they resided, I was still able to make some inferences from this data. The areas I collected questionnaires attracted people from various ethnicities and different economic backgrounds. Of those questioned there were very few who never visited any of the Franklin County Metro Parks (about 17% of people who filled out a questionnaire). Although most people did visit the parks, very few actually attended Nature Programs at the Parks (See appendix B). There was not a significant variation in Park program attendance from the four different areas I collected data. Most people said that they used the parks for hiking and walking as well as picnicking. It is interesting to note that of the 83% of the people questioned who said they did visit the parks; only 16% participated in

nature programs. The parks are being used by a wide variety of people, yet they are still unable to engage a more diverse group for participation in their programs.

Looking at US census data for the general areas of the city where I collected each set of data, I found some variation in race and economic background. The dominate race in all areas was white, though there was a significant African American population in the South and East side locations (see figure 1). The largest Latino population was on the East side of Columbus, which is the closest location to Westerville where Blendon Woods Metro Park is located. This might be an indication as to why the Naturalist at this park in put so much emphasis on creating programs with a cultural component. There was quite a diverse background of income in the areas where I collected data. The census data indicates that the Northwest side of Columbus has the largest amount of the population in the \$100,000 - \$124,999 average family income bracket. Both the East and West areas of Columbus had a majority of the population in the \$60,000 - \$ 74,000 average family income bracket. The South side of Columbus had the largest amount of the population in the \$15,000 - \$19,000 average family income bracket. I found no significant relationship between the areas of the city that people came from and whether or not they visited the Parks. Because there was no significant relationship between the area of the city and park visitation we can conclude from the data collected that income does not affect Park visitation (see figure 2). The variation in average family income in these different areas expresses the diversity in the socio-economic background of people visiting the Franklin County Metro Parks.

The data collected also indicates that although most people visit the Parks, it is to engage in activities other than Nature Programs. The majority of the people who filled

out a questionnaire responded yes to hiking/walking at the Parks as well as yes to picnicking at the Parks. On the other hand very few responded yes to attending Nature programs at the Parks. It seems that few people were even aware that these programs existed at the Parks. Perhaps through better outreach and advertising more people would become aware of the programs and choose to participate in programs.

In my interviews with the Naturalists I inquired about the general turnout for programs and what were some of the factors that attributed to fluctuations in turnout. The response was quite unanimous that weather played a major role in turnout as well as other activities going on in the area such as Ohio State football games. Outdoor programs such as hikes are greatly affected by weather. “It is difficult to know in advance what the turnout will be for a program, there are many factors that affect turnout” (Naturalist-Pickerington Ponds). Several Naturalists explained that some programs are intended for a smaller group. For example the Naturalist from Pickerington Ponds as well as the Naturalist from Chestnut Ridge both had experienced occasions in which they had to change the entire structure of the program because many more people than they had anticipated showed up for the program.

Another factor affecting turnout mentioned by the Naturalist at Inniswood Gardens, was whether or not the program involved a hands-on activity. “Our more popular programs are flower arranging programs and other programs that actually involve making something the participant can take home with them” (Park Naturalist-Inniswood Gardens, 2006).

I was curious as to whether or not program participants returned to other programs offered at the Parks. According to the Naturalists interviewed this was

dependent on the type of program the participant attended. For the participants that came for hikes or for the children's programs, there was a high rate of return to Park Programs according to the Naturalists. As the Naturalist at Inniswood explained, "the programs that draw more people, such as flower arranging, occur less frequently. People tend to come specifically for that program and do not return for other programs." The Naturalist at Blendon Woods expressed the same feeling, "We have around three hundred people that show up for our Monarch Day program every year that never come to any of our other programs. The people who attend Nature Hikes or other programs frequently tend to be those who live near the park or people who are very interested in the topic to begin with." This refers back to the notion that people are actually visiting the parks but not attending programs. As past studies on Metro parks found there were barriers that affected people's accessibility to parks. The content of the Park Programs seems to be one of the barriers affecting accessibility.

I also found this to be true from interviewing participants after observing different types of programs. The two participants in the Biodiversity hike at Blendon Woods lived in the apartment complex near the Park and said that they attended programs at the Park once a month. They also both told me that they were very interested in the topics because they had both studied science in college. A woman I spoke with after the Nature Awareness hike at Chestnut Ridge was a middle school science teacher. She was very interested in the topic and was looking for "fresh ideas for teaching her class about interactions that occur in nature." She said that she attended many park programs although not all at the same parks. "I go to the Parks according to the programs that are offered." On the other hand, for the participants I interviewed after the full moon hike at

Blacklick Woods, it was for most of them, their first time attending a park program.

Those that I interviewed who said they lived near the park (which was all but three) said that they would definitely attend another Park program. Those that did not live close to the Park said they would attend another program if they were in the area but they would not go out of their way to come back to the Park to attend a program.

The idea of the Naturalist at Blendon Woods of incorporating cultural lessons in her programs gives people in the community the opportunity to learn not only about the nature of the land that makes up the community but also the other people that are a part of the community. The focus of nature at a local level is important when expressing issues that directly affect the urban area of Franklin Co. but is also important to acknowledge the global spatial networks that Heynen et al. state play an important role in urban life.

Incorporating cultural lessons and reaching out to a larger audience might affect the audience of programs in terms of what parts of the county they come from to attend programs as well as the rate of return to Park Programs. According to the Naturalist at Blendon Woods the Monarch day program, in which she incorporates a cultural lesson, is the most popular program. This is not the primary reason for the high turnout but according to the Naturalist it does play a role in keeping people interested in the program as well as getting them to come back to the park. For the participants who come from Mexico this might be due to the fact that they are more able to relate to this program because it expresses the ecological connection between Mexico and Central Ohio. As the Naturalist from Battelle Darby Creek expressed it is important to be able to put things into terms that the participants can relate to directly in order to keep them interested.

The biodiversity program as well as the Monarch program at Blendon Woods, expressed the effects of global ecological processes on processes that occur in Central Ohio. They also explain the effects of such processes in Central Ohio on a global scale. The global interdependencies that exist are a primary part of today's capitalist urban areas. Therefore having knowledge of global spatial interactions helps to define why phenomena are occurring at a more local level, such as the example of invasive species given in the Biodiversity Hike at Blendon Woods.

Conclusion:

My hypothesis on accessibility to Franklin County Metro Parks defined as ability to visit Parks and attend Park programs as well as pertaining to variation in content of the programs seems to hold true. The nature-society views that are being expressed through most park programs seem to be dualistic views of the nature-society relationship. The human-nature relationship expressed by most modern academics is one of codependence that views the urban as natural. It has been expressed that environmental/societal problems that occur in a City (or anywhere else) are due to problematic processes. This means that the focus of our efforts in education on the environment needs to be on the processes. In order for people to see the process and not the City as the problem their view of human nature relationships needs to be shaped as a co-dependant view. This will help people to understand in order to fix the problem there must be correction of faulty processes instead of condemnation of the City for the environmental processes that exist.

Currently in Central Ohio the Parks are viewed as an escape from the ravages of the city. This view has been imbedded into society and is the dominant way of looking at nature in urban areas. Through the rise of capitalism the idea of nature as inanimate has

been used to legitimize exploitation of the earth for the profit of a few. The exploitation has created problems for the environment, which directly affects society. The effects of exploitation are not expressed evenly; there are some who benefit while others carry the burden. It is important in environmental education programs to illustrate the uneven distribution of environmental benefits and burdens. The uneven distribution stems from socio-environmental processes that are often ignored. Calling attention to these problematic processes could be a means of eliminating some of the burden carried by marginalized groups in society.

The parks provide a service that is meant for public use and therefore has the ability to reach out and educate all facets of society. By integrating cultural lessons with environmental lessons the Parks have the opportunity to educate the people of Franklin County on the necessity of respect when referring to all aspects of the community. One method of creating programs that are more adaptable to the continually evolving population of the city would be to incorporate a program (internship) for college students that are studying languages or International Studies. These students can work together with Environmental Science students to produce programs that integrate the ecological and social backgrounds with the environmental issues that are being conveyed through the program. Also by utilizing foreign language students to lead some of the programs, the intimidation of a language barrier would no longer be a restraint to access to park programs. This will create greater access to the Parks by taking away current barriers that exist for some marginalized groups of society. Creating evenness in accessibility to parks would also help decrease some of the unevenness of the current urban landscape. This is a way that the parks can create a sustainable process in the city that might have a positive

influence on some of the problematic processes that currently exist. Working together as humans with nature we can create an urban society that functions in a sustainable manner.

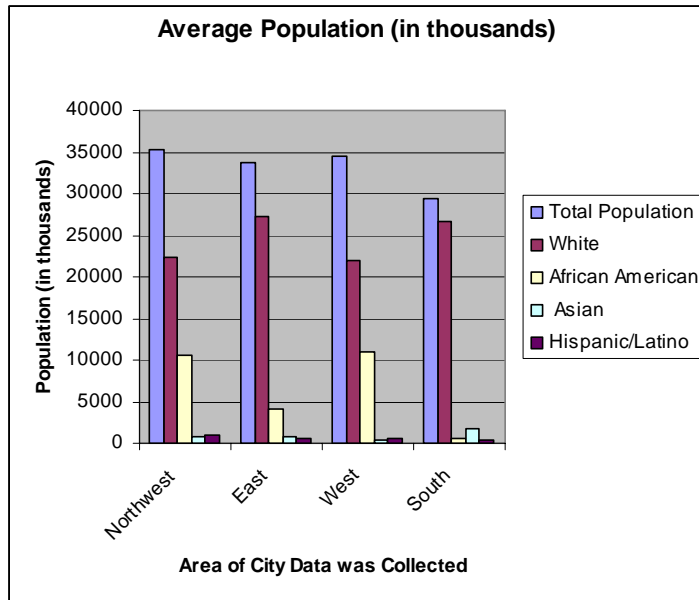


Figure 1- data obtained from US Census Bureau Website

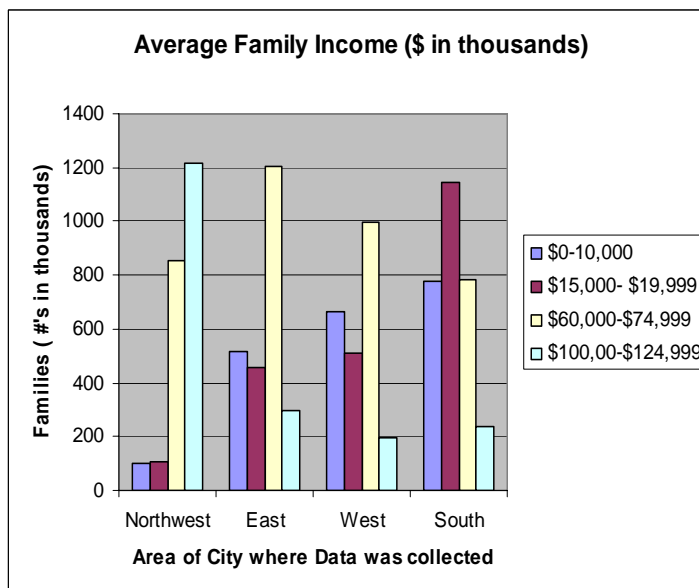


Figure 2- data obtained from US Census Bureau Website

Appendix A

Contingency Table**Observed Frequency of Park Visitation/Activities according to Area of the City Respondant Resides**

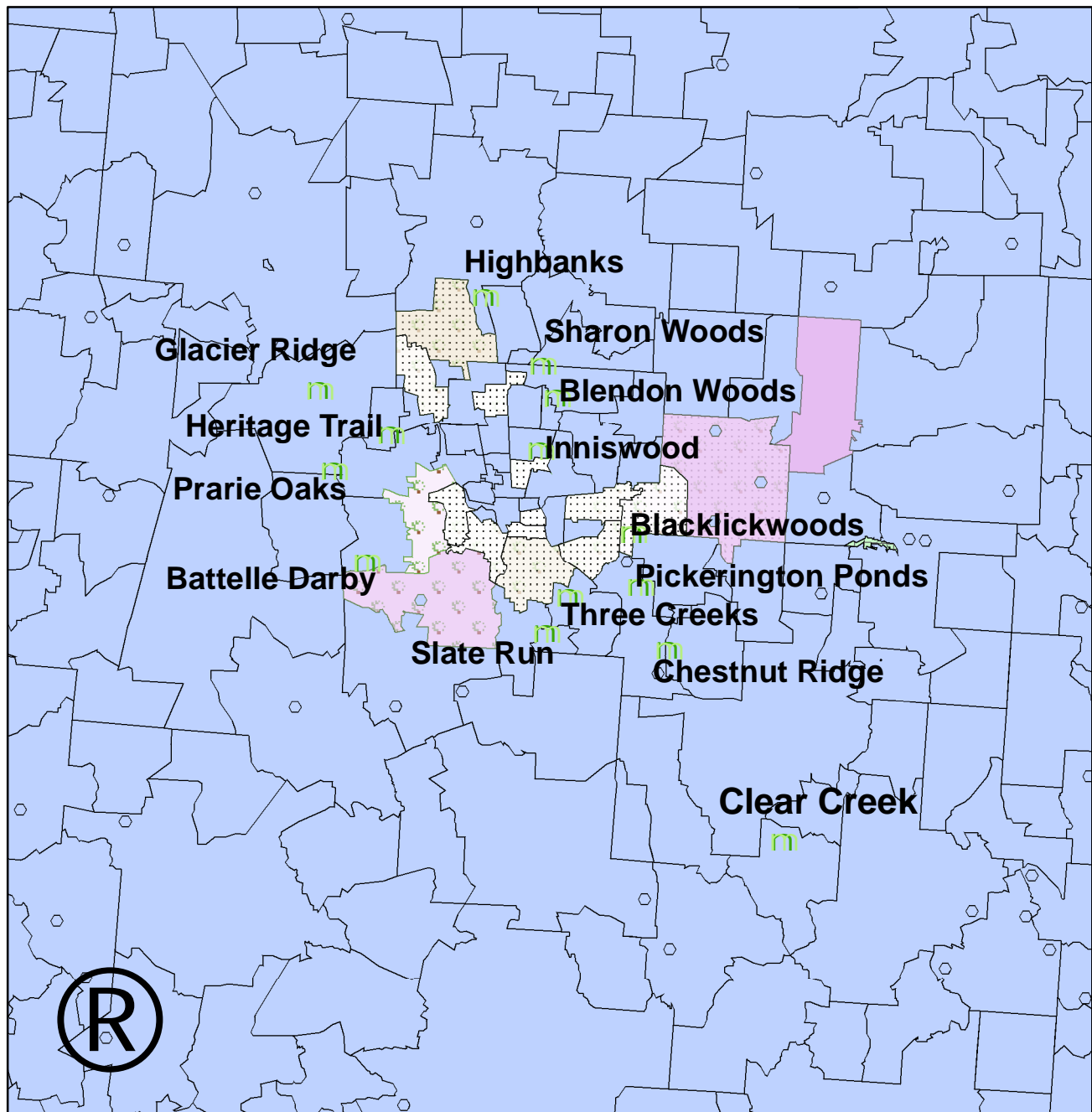
Area Of city data was collected	W	NW	E	S	TOTAL
Activity					
Park Visitation	22	24	30	26	102
Picnic	15	14	24	16	69
Hike/Walk	20	20	24	17	81
Nature Programs	5	6	6	7	24
Total	62	64	84	66	276

Expected Frequency of Park Visitation/Activities according to Area of the City Respondant Resides







Area Of city data was collected	W	NW	E	S	TOTAL
Activity					
Park Visitation	22.91	23.65	29.93	24.39	100.88
Picnic	15.50	16.00	21.00	16.50	69.00
Hike/Walk	18.20	24.65	24.65	19.37	86.87
Nature Programs	5.39	7.30	7.30	5.74	25.73
Total	62.00	71.60	82.88	66.00	282.48

X square Distribution	W	NW	E	S	TOTAL
Park Visitation	0.04	0.01	0.00016	0.11	0.16016
Picnic	0.02	0.25	0.43	0.02	0.72
Hike/Walk	0.18	0.88	0.02	0.29	1.37
Nature Programs	0.03	0.23	0.23	0.28	0.77
Total					3.02016

Franklin County Metro Parks



Legend

-  Franklin County Metro Parks
-  Zip Codes of Respondants who participated in Park Programs
-  Zip Codes of Respondents Who Visit Parks
-  Areas by Zip Code
-  Zip Codes of Respondents who Picnic at the Park
-  Zip Codes of Respondents who hike or walk at the parks

This Map shows results of the questionnaire (by zip code) people that answered yes to visiting the Parks, yes to participating in park programs, yes to picnicking at the park and yes to walking/hiking at the park. It shows where they live in relation to the location of the parks.

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